Work Ord July-31-12 10:		3201	<u></u>	*882	201*						Page 1
Item ID: Revision ID:	D3873-3		$\int M$	Accept	*N900	040	100)* s	Setup Star	I ZI	S1*
Item Name:	Bushing	,	~ 7°° (Stop	, *N	S2*
Start Date: Required Date	7/31/12 :: 8/24/12	Start Qty: 12.00 Req'd Qty: 12.00	^ว	*	Cust Item l Customer:	ID:					
Reference:								ı	Run Star	t 4	D 4 ±
Approvals:	Process Pl	lan: MLゴ	Date: 12 08	02 Tooling:	D	ate:		-		1/1	R1^
	QC:		Date:	SPC (Y/N):	D	ate:			Stoj	° *N	R2*
Sequence ID/ Work Center I	ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Re	vision Nbr									***************************************
D3873	С										
100				0.00							33
100/								70	O		₹33 ₹89
Hardinge	١	Memo		0.00							
Hardinge CNC Lat	the Small	FOLIO R	AS PER FOLIO FA955 & EV: U[A EV: C	: DWG D3873 ,							
Q^{\prime}	A	2-DEBUI	RR AS REQUIRED								- 4
110		QC2- Inspect parts of	f machine FAI/FAIB	0.00							330
110 QC		Memo		0.00				30	0		& 89 0 0
Quality Control											

$NCR \cdot$	Yes	1	Nο

DQA: Date:

NCR:	⁄es	/ No				WORK ORDER NON-	LUI	NFORM	MANCE / UP	'UA I E			• •
		,							•		QA Closed:	Date	:
Work Ord	or.					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part f	•					Rework Scrap		Skid-tube Crosstube Machining Small Fab			Water Jet Prod. Eng. Coor.		Engineering Quality
NCR I	No.					Use-as-is Thermoforming		noforming Large Fab	Finishing Composite	*		Other	
Root					Descr	iption of work order update	nitial	Ac	ction	Sign &			
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
oc/Data													
quip/Tooling													
perator													
laterial													
etup						•							
ther													
rocess													
upplier													
raining													
napproved													
						F	AUL	T CATE	GORY				
Landi	ng G	iear				General		_					<u></u>
į		Bending				Bend		Grain			Ovalized		Pressure/Forced
		Centre No	ot Concer	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	П	Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld
		Crushed/0	Crimped.			Burrs	Г	Instruct	ions Incomplete/	/Unclear	Part Lost/M	issing	Wrong Stock Pulled
		Cuffs				Contamination		Mainte	enance		Part Moved		-
		Heat Trea	t			Countersink	Г	Mislabe	led		Positioned V	Vrong	
		Inspection	n Strip in	Tube		Cut Too Short		Misread	i		Power Loss/	_	Other
		Ripples in	Bend			Drill Holes		Offset		L	·	_	•
	_	Torque W		xtrusio	n	Drawing		Out of 0	Calibration				
:	_	Turning Se				Finish	Out of Sequence						
	_		/Twist in Tube										

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Order ID 3	88201		*882	201*					Page 2
tem ID: D3873-3 Revision ID: tem Name: Bushing start Date: 7/31/12	Start Qty: 12.00	*12*	Accept	*N900 Cust Item I	040100 0:)* s	etup Start Stop	171	S1* S2*
Required Date: 8/24/12 Reference:	Req'd Qty: 12.00	*12*		Customer:		n	tun Start		
• •	Plan:	Date:	Tooling: SPC (Y/N):		ate:	ĸ	Run Start Stop	!Д!	R1* R2*
Sequence ID/ Work Center ID 20 *120* QC Quality Control	Operation Description QC8- Inspect parts - secon	nd check	Set Up/ Run Hours 0.00	Tool ID	Tool # Plan Code	Accept Qty		Reject Number	Insp. Stamp
30 *130* Packaging Packaging	Identify as per dwg & Sto Memo	ck Location J 69	0.00			<u>36,</u>	. <u>-</u>	/3-	-01-83
*140 *140* QC	QC21- Final Inspection -	Work Order Release	0.00				13	11/9	1
Quality Control							121	3-01,0	03

							* *					DQA:	Date	4
NCR:	/es	/ No					WORK ORDER NON-C	100	NFOR	MANCE / UPDATE		•		
						_					Q/	Closed:	Date	4
Work Orde	er:						DISPOSITION			AGAINST D	EPA	RTMENT	PROCESS	**
	••••					Ì	Rework			Skid-tube Crosstube			Engineering	
Part N	lo.					ı	Scrap			Machining Small Fab	-			Quality
	•					ı	Use-as-is		Thern	noforming Finishing		Rec/Stor	e/Packaging	Other
NCR N	Ю.						Work Order Update Large Fab Composite						Supplier	
	-		f			_		لے	*** 1			c: 0		
Root		Date	Ston	Otv	Desc	-	tion of work order update r Non-conformance	ı	nitial iief Eng	Action Description		Sign & Date	Verification	QC Inspector
Cause loc/Data		Date	Step	Qty			r Non-comormance	CII	nei eng	Description	+	Date	verification	QC IIIspector
quip/Tooling														
perator											1			
/laterial														
etup	 													
ther												3		
rocess														
upplier														
raining														
Inapproved														
								AUL	T CATE	GORY				
Landi					_		General		1 .	-	_		_	¬ ·
	$\overline{}$	Bending					Bend	<u> </u>	Grain	-	_	/alized		Pressure/Forced
	$\overline{}$	Centre No	t Concer	itric to	O/S	_	BOM/Route	_	Hardwa	<u> </u>		/er/Under		Temperature/Cure
	-	Cracks			-	\neg	Broken/Damaged	<u> </u>	1 '	ion Incomplete	_	rt Incorred	⊢	Weld
		Crushed/C Cuffs	rimped.		}		Burrs Contamination	\vdash	Mainte	tions Incomplete/Unclear		irt Lost/Mi irt Moved	ssing	Wrong Stock Pulled
i:		Heat Trea	t		-	_	Contamination	-	Mislabe	F	_	irt ivloved Sitioned V	Vrong	,
1		Inspection	-	Tube	-		Cut Too Short	\vdash	Misread	· · · · ·	 1	osmonea v ower Loss/		Other
		Ripples in		TUDE	}		Drill Holes	\vdash	Offset	٠ <u>ـ</u>		VVCI LU33/	Juige L	Totalei
	Н	Torque W		xtrusio	n		Drawing	\vdash	4	Calibration				
		Turning Se			-	_	Finish	<u></u>	-	Sequence	_			
٠		Wave/Twi	•	e		_	Folio		1	e Dimensions				

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

July-31-12 10:56:59 AM

Work Order ID:

88201

Parent Item:

D3873-3

Parent Item Name:

Bushing

Start Date: 7/31/12

Required Date: 8/24/12

Start Qty: 12.00

Required Qty: 12.00

Comments

Ipp Rev:A New Issue 10-08-03 JLM Verified By:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M303R0.750		Purchased	No			100	f	272.0115	0.16	2.02105	32		<u>.</u>
303 Round Bar 0.750											··· · · · · · · · · · · · · · · · · ·	<u>=</u>	
	•			Location		Loc Oty	<u>Lo</u>	c Code					
				MAT028		272.0115							
				1173	328	13.242							
				1177	798	4.004							
				1185	509	4.08					oA_0		
				1193	346	0.645					33		
				120	145	10.566					6. 60		
				1210	070	1.1							
•				121	157	2.687							
				122	166	60			7/1= VII				
				122	386	78.75							
				122:	504	96.9375							
				17	2734				•	85	12.12.	J i	

												DQA:	Dat	te:	
NCR:	Yes	/ No				WORK ORDER NON-	COI	NFORM	MANCE / UP	DATE		·		-	
		-								· · · · · ·		QA Closed:	Da	te:	,
Work Ord	er:					DISPOSITION				AGAINST D	Œ	PARTMENT	PROCESS		
Work Ord	C 1.					Rework	7		Skid-tube	Crosstube			Water Jet		Engineering
Part	No.					Scrap	1	B .	Machining	Small Fab		Pro	d. Eng. Coor.		Quality
						Use-as-is	1	Therm	noforming	Finishing		Rec/Stor	e/Packaging		Other
NCR	No.					Work Order Update]		Large Fab	Composite			Supplier		
		1	1	ı		<u> </u>			,					_	
Root					i .	ption of work order update	1	Initial		tion		Sign &			
Cause		Date	Step	Qty	(or Non-conformance	Cr	nief Eng	Desc	ription		Date	Verificatio	n	QC Inspector
Doc/Data	L]													
Equip/Tooling	L														
Operator									:						
Material	L														
Setup	L														
Other															
Process]													
Supplier															
Training															
Unapproved				<u> </u>											
						F	AUI	T CATE	GORY						
Landi	ing (Gear				General		_				_			_
		Bending				Bend		Grain				Ovalized			Pressure/Forced
		Centre No	ot Concer	ntric to	o/s	BOM/Route		Hardwa	re			Over/Under	tolerance	Г	Temperature/Cure
		Cracks				Broken/Damaged		Inspecti	on Incomplete	Ī		Part Incorre	ct		Weld
	Γ	Crushed/	Crimped.			Burrs		Instruct	ions Incomplete	/Unclear		Part Lost/Mi	issing		Wrong Stock Pulled
		Cuffs				Contamination		Mainte	nance	Ţ		Part Moved			•
		Heat Trea	it			Countersink		Mislabe	led	Ī		Positioned V	Vrong		
		Inspection	n Strip in	Tube		Cut Too Short		Misread	ı	F		Power Loss/	_		Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

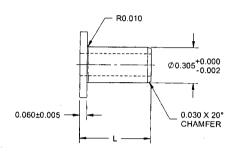
Drawing

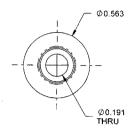
Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G







D3873-X BUSHING

	DAKI P/N	L.
^	D3873-1	0.600
	D3873-3	0.120
C ∕	D3873-5	0.270

SHOP COPY **RETURN TO** ENGINEERING UNCONTROLLED COPY SUBJECT TO AMENDMENT WITHOUT NOTICE WORK ORDER NO. <u>88201</u> MLJ 17/08/02

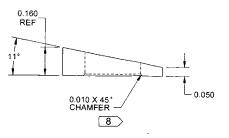


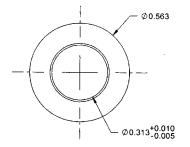
С	ADD D3	873-3/-5/-7 (ZI	N B6-1 & B5-2)	RF	11.06.14			
8	Ø 0.563	WAS Ø0.63 (C3-1, TO FIT TRIBAG GIRT)	CP	10.07.22			
Α	NEW IS	SUE		MB	09.01.07			
REV.			DESCRIPTION	BY	DATE			
DESIG	N	CP	DART AEROSP	ACE IISA	INC			
DRAWN SC			PORT HADLOCK, WA					
CHECK	(ED	a	DRAWING NO.		REV. C			
MFG. A	PPR.	E	□ D3873		SHEET 1 OF 2			
APPRO	VED	149	TITLE		SCALE			
DE APP	PR.	#	BUSHING		NTS			
DATE	11.0	6.14	COPYRIGHT © 2009 BY DART AEROSPACE USA, INC. THE DOCUMENT IS REWARD AND COMPOSITION, AND IS SEPTIMED ON THE EMPESS CONCINON THAT IT IS NOT TO BE USED FOR ANY PROPOSE OR COMPANIATION TO ANY OTHER PERSON WITHOUT					

NOTES:
1) MATERIAL: AISI 303 STAINLESS STEEL ROUND BAR PER ASTM A582
REF DART SPEC M303R
2) FINICH, MONE

2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: NONE
7) WEIGHT: PER TABLE

WEIGHT (lbs) 0.010 0.005 0.007





D3873-7 SPACER



NOTES:
1) MATERIAL: AISI 303 STAINLESS STEEL ROUND BAR PER ASTM A582
REF DART SPEC M303R
2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: NONE
7) WEIGHT: 0.005 IDS
8) IT IS ACCEPTABLE TO BE DEBURR

D

С

DESIGN DART AEROSPACE USA, INC. PORT HADLOCK, WA DRAWN RF, DRAWING NO. D3873 CHECKED REV. C MFG. APPR. SHEET 2 OF 2 APPROVED TITLE SCALE DE APPR. BUSHING NTS DATE 11.06.14

5

3

COPYRIGHT © 2009 BY DART AEROSPACE USA, INC.
THIS DOCUMENT IS PRIVATE AND COMPRISHING AND IS SEPTLED ON THE EXPRESS COMMON NOT TO BE USED FOR ANY PURPOSE OR COMMON CATED TO MAY OTHER PERSON.

DART AEROSPACE LTD	Work Order: 88 201
Description: Bushing	Part Number: 03877-3
Inspection Dwg: 02873 Rev: C	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
.060	± .005	. 062	-			
1120	±.010	.125	_			
.630x 200	ナーロリロ	. 072				
,305	1000	.3022				
12.010	± .010	.008	_			
p.563	±.010	.561	-			
9.191	+ .005	. ાવા				
·						

Measured by: 36	240	Audited by:	S	Preliminary Approval:	
Date: 12.12.3	1,000	Date:	13-01-02	Date:	

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	